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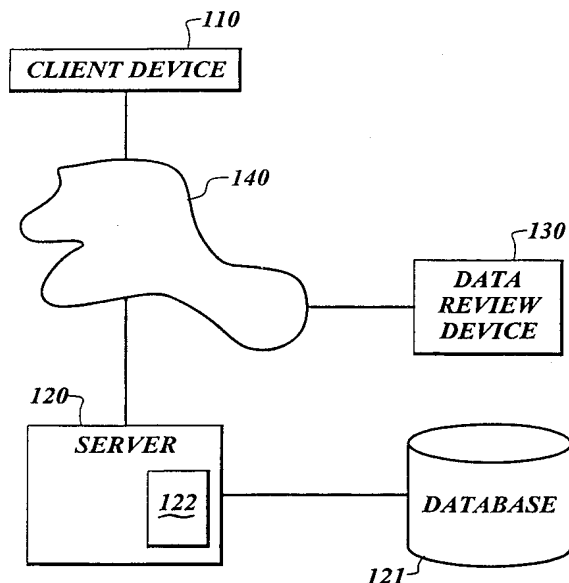
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(57) Abstract

The invention provides a set of techniques and products in which one or more insured persons and one or more associated beneficiaries are monitored with regard to dynamic risk reassessment, given feedback information in response to that dynamic risk reassessment, and are encouraged to comply with the feedback. The insured persons and associated beneficiaries are coupled to a client-server system disposed for dynamic measurement of medical information, and the client-server system is disposed for alerting the insured persons and associated beneficiaries to suggested behaviors for reducing risk. The invention includes an insurance product in which portions of the insurance premium are allocated to one or more components, in response to compliance with the suggested behaviors.

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REDUCING RISK USING BEHAVIORAL AND FINANCIAL REWARDS5 Field of the Invention

These known methods increase the incentive for the insured entity to reduce the insured-against risk. However, these methods are subject to several drawbacks. Where the insured-against risk is relatively inevitable (such as with life insurance or long-term care insurance), the insurance company finds it difficult to avoid the inevitability of a claim. Rather, it is in the underwriter's interest to stave off the claim for as long as possible.

10 Certain kinds of insurance (such as long-term care insurance) also have a substantial effect on the family of the insured person. For example, the insured person is often faced with the dilemma of either (1) reduction to penury to qualify for government support, or (2) spending their entire estate on long-term care. The family of the insured person also has interests against these options.

15 Accordingly, it would be advantageous to provide a method and system to increase the incentive for the insured entity to reduce the insured-against risk, even when that insured-against risk is relatively inevitable. In the case of long-term care insurance, it is in the underwriter's interest to provide incentives for the insured person and their family to maintain the insured person's health and independence for as long as possible (quite apart from the emotional incentives they already have).

20 Application Serial No. _____, Express Mail Mailing No. EE 261 914 722 US, filed September 23, 1998, in the name of Stephen J. Brown, titled "Dynamic

Modeling and Scoring Risk Assessment,” assigned to the same assignee, attorney docket number HHN-003 describes techniques for modeling and scoring risk assessment that are time-dependent, and in one embodiment are responsive to progression of a disease or degenerative condition in a patient.

5 One aspect of this co-pending application is that the insurer can dynamically adjust the risk assessment of individual insured persons in response to action taken (or not taken) by those insured persons to maintain their own health. The underwriter can thus dynamically adjust the cost or the benefits of the insurance policy in response to those actions. By doing so, the underwriter, the insured person, and the insured
10 person’s family have the common goal of maximizing the useful life and independence of the insured person.

As described in the co-pending application, dynamic reassessment can be performed in conjunction with a monitoring and scoring system for determining risk assessment for populations and for individuals with regard to those populations.

15 It would also be desirable for the insured person (and associated others) to make use of dynamic risk are assessment to monitor and influence the behavior of the insured person, to reduce the risk. It would also be desirable to provide the insured person, and the insured person’s family with information available to the underwriter, and to suggest particular prescribed or proscribed actions that would reduce short-
20 term risk and provide a greater payoff for all concerned.

Accordingly, it would be advantageous to provide the insured person, and associated others, with feedback information from dynamic reassessment of the risk associated with the insured person, so that the insured person, and associated others, can act to minimize that risk. This advantage is achieved in an embodiment of the
25 invention in which the insured person and their beneficiaries are provided with feedback information and instruction responsive to dynamic risk reassessment, and in which payments form an associated set of insurance products are allocated dependant on compliance with that feedback. For example, one such insurance product includes a long-term care component and a life insurance component, and devotes a fraction of
30 the product premium to one or the other component in response to compliance with the feedback offered by the underwriter.

Summary of the Invention

The invention provides a set of techniques and products in which one or more insured persons and one or more associated beneficiaries are monitored with regard to dynamic risk reassessment, are given feedback information responsive to that dynamic risk reassessment, and are encouraged to comply with the feedback information. In a preferred embodiment, the insured persons and associated beneficiaries are coupled to a client-server system that is configured to obtain dynamic measurement of medical information (for example, using bio-medical devices or using a question and answer format), and the client-server system is configured to alert the insured persons and associated beneficiaries to suggested behaviors for reducing risk. The preferred embodiment includes an insurance product in which portions of the insurance premium are allocated to one or more components (such as a long-term care benefit or a life insurance benefit), in response to compliance with the suggested behaviors. Thus, the insured is provided with an incentive for compliance with the suggested behaviors for reducing risk by receiving a more beneficial allocation of the premium to the components of the insurance product.

In a preferred embodiment, an insured patient is examined at intervals by medical personnel, to determine medical information that can be used as factors for dynamically determining a risk assessment for that insured patient. The medical personnel can determine a medical regimen (possibly including diet, exercise, prescribed medication, or other factors) that are intended to reduce the insured-against risk. The insured patient, and where appropriate, associated beneficiaries or other close relations, use a client device with a client-server system to provide dynamic medical information regarding the condition of the insured. For example, the client device can periodically measure blood glucose, blood pressure, heart rate, weight, and the like. Similarly, the client device can periodically question the insured patient or the close relations for information about the insured, such as affect or mutation, diet or exercise, and the like.

In response to the prescribed medical regimen and information from the insured patient, a server device receiving that information from the client device can dynamically reassess risk factors associated with the insured patient, and can alert medical personnel or close relations in response thereto. In response to dynamic risk assessment, the server device can modify which portions of an insurance premium (or

other financial product payments) are allocated to one or more components (such as a long-term care component or a life insurance component). The server device can use patient compliance with the suggested medical regimen as one measure to be factored into the dynamic risk assessment.

5

Brief Description of the Drawings

FIGURE 1A shows a diagram of a system for data collection and interpretation for a population;

FIGURE 1B shows details of the client device shown in **Fig. 1A**;

10 FIGURE 1C shows devices that may be connected to client device;

FIGURE 1D shows details of the data review device;

FIGURE 2 illustrates a data flow diagram indicating some of the data paths used in a preferred embodiment;

FIGURE 3A illustrates a process for determining dynamic risk assessment;

15 FIGURE 3B illustrates a process used to evaluate patient information;

FIGURE 4 illustrates a process used to respond to risk; and

FIGURE 5 illustrates a process used to determine feedback information.

Description of the Preferred Embodiments

20 In the following description, a preferred embodiment of the invention is described with regard to preferred process steps and data structures. Embodiments of the invention can be implemented using general-purpose processors or special purpose processors operating under program control, or other circuits, adapted to particular process steps and data structures described herein. Other embodiments
25 include computer program products that contain computer code embodied in a computer readable media for causing a computer to perform the process steps. Implementation of the process steps and data structures described herein would not require undue experimentation or further invention.

30

Related Applications

Inventions described herein can be used in combination or conjunction with inventions described in the following patent applications. These patent applications are hereby incorporated by reference as if fully set forth herein:

Application Serial No. 09/041,809, filed November 21, 1997 in the name of Stephen J. Brown titled "Phenoscope and Phenobase," assigned to the same assignee, attorney docket number RYA-136.

Application Serial No. _____, filed _____, in the name of Stephen J. Brown titled "Health Management Process Control System," assigned to the same assignee, attorney docket number RYA-114.

Application Serial No. _____, filed _____, in the name of Stephen J. Brown and Erik K. Jensen, titled "On-Line Health Education and Feedback System Using Motivational Driver Profile Coding and Automated Content Fulfillment," assigned to the same assignee, attorney docket number RYA-115.

Application Serial No. _____, filed _____, in the name of Stephen J. Brown titled "Multiple Patient Monitoring System for Proactive Health Management," assigned to the same assignee, attorney docket number RYA-116.

Application Serial No. _____, filed _____, in the name of Stephen J. Brown titled "On-Line Health Education Using Composites of Entertainment and Personalized," assigned to the same assignee, attorney docket number RYA-116.

Application Serial No. _____, filed _____, in the name of Stephen J. Brown titled "On-Line Health Education Using Composites of Entertainment and Personalized Health Information," assigned to the same assignee, attorney docket number RYA-119a.

Application Serial No. _____, filed _____, in the name of Stephen J. Brown titled "Monitoring System for Remotely Querying Individuals," assigned to the same assignee, attorney docket number RYA-126.

Application Serial No. _____, filed _____, in the name of Stephen J. Brown titled "Multi-User Remote Health System," assigned to the same assignee, attorney docket number RYA-131a.

Application Serial No. _____, Express Mail Mailing No. EE 261 914 722 US, filed September 23, 1998, in the name of Stephen J. Brown titled "Dynamic Modeling and Scoring Risk Assessment," assigned to the same assignee, attorney docket number HHN-003.

System for Reducing Risk

The invention enables dynamic risk determination of an insured's condition. An example of when the invention can be used is if the insured has a progressive condition, which will eventually require long-term care (such as diabetes), but for which in-home care is currently appropriate. Another example where dynamic risk determination can be used is if the insured is at risk for a medical setback (such as an MI or a stroke) but currently is capable of self-care. Yet another example is when the insured is currently being cared for by family, but the care burden is increasing and the insured will eventually require long-term care. The invention allows the underwriter to dynamically determine the current risk to the insured and to provide incentives to the insured to reduce that risk.

Fig. 1A shows a block diagram of a system for data collection and interpretation for a population.

Referring to **Fig. 1A**, a system 100 includes a client device 110, a server device 120 including a database of information 121 and a program memory 122, and a data review element 130. These devices are connected via a communication channel 140, such as a communication network as is well known in the art, and as more fully described in the Phenoscope and Phenobase patent application (serial no. 90/041,809).

The communication channel 140 may be a simple point-to-point network (for example a wire connecting the client device 110 with the server device 120), or a complex network such as the Internet.

Referring to **Fig. 1B**, the client device 110 is disposed locally to a patient 111 (the insured), and includes an output element 112 for presenting information to the patient 111, and an input element 113 for entering information from the patient 111. As used herein, "locally" refers to a logical relationship to the patient 111, and does not have any necessary implication with regard to actual physical position. In a preferred embodiment, the client device 110 is relatively small or compact, and can be disposed on a night table or otherwise near the patient 111.

The output element 112 includes a display screen 114, on which questions and suggested answers can be displayed for the patient 111, to facilitate information entry, or on which instructions can be displayed for the patient 111, to instruct the patient 111. The output element 112 can also include a speaker 115, to present information

in conjunction with or in alternative to the display screen **114**. The output element **112** can also include a bell or other sound element, or a bright light **119** or a flag, to alert the patient **111** that the client device **110** has questions or information for the patient **111**.

5 The input element **113** includes a plurality of buttons **116A-D** for entering information.

 The input element **113** can also include one or more data ports **117A-D** for entering information from other devices. Referring to **Fig. 1C**, such other devices **118** can include a medical measurement device, such as a blood glucose meter or a blood pressure monitor. Such other devices **118** can also include a general purpose or special purpose client workstation, such as a personal computer or a hand-held digital calendar.

10 The server device **120** is disposed logically remotely from the patient **111**, and includes a database **121** of information about the patient **111** and about other patients in a related population thereof. As used herein “remotely” refers to a logical relationship to the patient **111**, and does not have any necessary implication with regard to actual physical position.

 The database **121** includes medical history, medical regimen, and risk progression information for the insured and a similarly situated population. The database **121** also includes the compliance background for the insured indicating how well the insured follows the prescribed medical regimen and avoids the proscribed activities.

20 The server device **120** also includes the program memory **122** that contains program code and data to cause the server device **120** to perform subsequently described processes.

 In a preferred embodiment, the server **120** and database **121** are preferably accessible using a standard network connection (such as a world wide web connection). The server **120** and database **121** may include single stand-alone computers or multiple computers distributed throughout a network.

30 The data review element **130** is disposed logically remotely from the patient **111**, and includes an interface **131** disposed for use by an operator **132**. The operator **132** can comprise medical personnel, a device operated by medical personnel, or a similar device, capable of interacting with the interface **131** to receive information from the data review element **130** and possibly to enter information into the data

review element **130**. Information entered into the data review element **130** can be entered for ultimate transmission to the server device **120** or to the client device **110**.

The data review element **130** is preferably a personal computer remote terminal, web TV unit, Palm Pilot unit, interactive voice response system, or any other communication technique. The data review element **130** functions as a remote interface for entering server **120** or client device **110** messages and queries to be communicated to the individuals. The data review element **130** also functions to provide the professional to evaluate the progression of the insured and to monitor the insured's medical regimen.

Other and further information regarding the system **100** is shown in Application Serial No. 09/041,809, titled "Phenoscope and Phenobase," attorney docket number RYA-136 and Application Serial No. _____, titled "Dynamic Modeling and Scoring Risk Assessment," attorney docket number HHN-003.

Fig. 2 illustrates a data flow diagram, indicated by general reference character **200**, that indicates how data flows within a preferred embodiment. The nodes include an insured **201**, a client device **203**, a server device **205**, an accounting server **207**, a workstation **209**, and a professional **211**. These nodes are connected by data flows that include an 'insured-client device' data stream **221**, a client device-insured data stream **223**, a client-server data stream **225**, a server-client data stream **227**, a server-workstation data stream **229**, a workstation-server data stream **231**, a workstation-professional data stream **233**, a professional-workstation data stream **235**, a 'workstation-accounting server' data stream **237**, an 'accounting server-insured' data stream **239**, and an 'accounting server-server device' data stream **241**. Each of these data streams transfer data between the nodes connected by the data stream.

In particular the server device sends patient protocol and interrogatories to the insured by sending this information across the server-client data stream **227** to the client device **203**. The client device **203** then instructs or queries the insured **201** utilizing the client device-insured data stream **223**. The insured **201** responds to the queries, instructions, or through bio-medical input devices to the client device **203** using the 'insured-client device' data stream **221**. The client device **203** passes this acquired information to the server device **205** over the client-server data stream **225**. The server device **205** stores the information acquired from the insured **201**.

Feedback is provided to the insured **201** by sending feedback information from the server device **205** to the client device **203**. This feedback information can include

additional medical regimens for the insured **201** to timely follow (for example, additional tests that are determined by the server device **205** responsive to the information just gathered from the insured).

5 The professional **211** uses the workstation **209** (passing data over both the workstation-professional data stream **233** and the professional-workstation data stream **235**) to access and/or modify data received by, stored on or created on the server device **205**. This data is access using the server-workstation data stream **229**. The professional **211** can also modify the medical regimen for the insured or provide other information for the insured. These modifications are sent to the server device
10 **205** over the workstation-server data stream **231** and then to the insured using the ever-client data stream **227**, the client device **203**, and the client device-insured data stream **223**. The professional **211**, using the workstation **209** can send information (reflecting benefits to the insured) to the accounting server **207** using the 'workstation-accounting server' data stream **237**. The status of benefits can be sent
15 directly to the insured using the 'accounting server-insured' data stream **239** (for example by using postal mail, FAX or other traditional mechanism) or the information can be sent over the 'accounting server-server device' data stream **241** to the server device **205** and on to the insured sing previously discussed paths.

The professional **211** assesses the insured-against risk using both the static
20 data most recently collected from the insured, the progression over time of the data collected from the insured and information known to, or accessible by the professional **211**. this assessment includes the insured's compliance with the prescribed medical regimens and other environmental and behavioral factors. This assessment can also include information and recommendations provided by artificial intelligence expert
25 systems that are accessible to the professional **211** through the workstation **209**.

Fig. 3A illustrates a dynamic risk assessment process, indicated by general reference character **300**, for determining dynamic risk assessment. The dynamic risk assessment process **300** is cyclic in normal circumstances. A 'gather patient information' step **301** obtains medical information (such as bio-medical information)
30 from the insured (using the client device **110**) by using a series of questions or by using bio-medical sensors. The medical information is gathered according to a protocol provided by the server device **120**. This medical information is sent to a server device that performs an 'evaluate patient information' step **303** that determines one or more risk factors for the insured as is subsequently described with respect to

Fig. 3B. Next, the dynamic risk assessment process 300 delays for an appropriate time at a delay step 305. This delay can be varied as appropriate for the insured, the insured's condition, the caregivers, and the insurance provider. The delay step 305 determines the time interval between gathering information from the insured and is
5 appropriately set to be (for example and without limitation) some number of days, weeks or months. Eventually, the delay ends at a 'delay complete' step 307 and the dynamic risk assessment process 300 repeats at the 'gather patient information' step 301 to re-determine the insured-against risk for the insured.

The medical information gathered by the 'gather patient information' step **301**
10 is specific to the insured's current risk and progression of the condition. For example, the insured or caregiver may be periodically instructed to check for sores on extremities if the insured is diabetic. In addition, the caregiver can provide information about affect or mentation. If the insured interacts with the client device **110**, the response time to questions can also be gathered.

15 The 'gather patient information' step **301** and the evaluate patient information step **303** can be repeated dependent on the data acquired from the insured by the previous iteration. Thus, if the previous iteration returned data that indicates that a subsequent test should be performed, the server device **120** can send the client device **110** a protocol to cause the client device **110** to obtain the new information from the
20 insured, caregiver, or other person.

Fig. 2B illustrates an 'evaluate patient information' process, indicated by general reference character **320** that reassesses the risk based on the gathered information and responds to that risk. The 'evaluate patient information' process **320** is invoked by the evaluate patient information' step **303** of **Fig. 3A** and initiates at a
25 'start' terminal **321**. The 'evaluate patient information' process **320** continues to a 'send data to server device' procedure **323**, performed by the client device **110**, that sends the medical information gathered by the client device **110** to the server device **120**. The medical information is stored on the database **121** by a 'store data' procedure **325**.

30 Once the medical information is stored, a 'reassess risk' procedure **327** (as disclosed in Application Serial No. _____, attorney docket number HHN-003) can use the medical information, a risk-assessment model and the database **121** to determine the current risk of the insured. The risk includes one or more risk factors. These risk factors are used to determine an insured-against risk.

Example risk factors include information such as "patient smokes," "patient has diabetes," "patient has diabetes and doesn't bother to check his blood sugar regularly," etc.

Once the insured-against risk has been determined, the 'evaluate patient information' process **320** continues to a 'respond to risk' procedure **329** (subsequently described with respect to **Fig. 4**). The 'respond to risk' procedure **329** determines one or more medical regimens for the insured. These medical regimens are selected to reduce the risk factors and thus to reduce the insured-against risk of the insured. The 'respond to risk' procedure **329** can also adjust the proportion of the insurance cost allocated to components of the financial product used by the insured. The 'reassess risk' procedure **327** and the 'respond to risk' procedure **329** need not be performed every time data is received by the server device **120**. These procedures can be executed independent of the following procedures.

Once the medical information is stored by the 'store data' procedure **325** the dynamic risk assessment process **300**, can also continue to a 'determine feedback information' procedure **331** that develops feedback for the insured that can include one or more medical regimens, display of bio-medical information, encouragement to follow the suggested medical regimen or follow-on protocols. The feedback information is sent back to the client device **110** by a 'send feedback information' procedure **333**. A 'resent feedback information' procedure **335** then presents the feedback information to the insured and/or the caregiver. The 'evaluate patient information' process **320** completes through an 'end' terminal **337**.

The 'determine feedback information' procedure **331** can also provide the client device **110** with additional data gathering protocols that are dependent on the just-gathered information -- to obtain additional information. In addition, the 'determine feedback information' procedure **331** checks to determine whether the just gathered information is out-to-limit, indicates a trend, or should be forwarded to a medical professional.

Other preferred embodiments can allocate these processes between the client device **110** and the server device **120** in a different manner. For example as the relative cost/performance ratio changes for the client device **110** and the server device **120**, more of these procedures can be moved to the client device **110**.

Fig. 4 illustrates a 'respond to risk' process, indicated by general reference character **400**, that is configured to adjust the cost of the financial product between

the components of the financial product for the insured. The 'respond to risk' process 400 is invoked by the 'respond to risk' procedure 329 and initiates at a 'start' terminal 401. The 'respond to risk' process 400 then continues to a 'risk change' decision procedure 403 that determines whether the current insured-against risk has sufficiently changed from the existing insured-against risk retrieved from the database 121. If the insured-against risk has not sufficiently changed, the 'responded to risk' process 400 completes through an 'end' terminal 405. Otherwise, the 'respond to risk' process 400 continues to an 'allocate benefits' procedure 407 that reallocates the cost to the insured between the components of the financial product to correspond to the new insured-against risk. Where the insured-against risk is reduced, the new allocation rewards the insured. However, if the insured-against risk has increased, the insured is penalized. Next, an 'inform' procedure 409 generates information that will be provided to the insured and/or the caregiver either using postal mail or as information provided to the insured by the 'present feedback information' procedure 335. This procedure also provides the new allocations to an accounting database and/or the payout system for the financial product. Next, the 'respond to risk' process 400 completes through the 'end' terminal 405.

In a financial product that has at least two components (such as a long-term car component and a life insurance component) the 'allocate benefits' procedure 407 determines a cost for the long-term car component and allocates a first payment to that component of the financial product. The 'allocate benefits' procedure 407 then allocates a second payment to the life insurance component of the financial product, to any annuity, or to another benefit for the insured (such as a refund). The second payment is a function of the first payment. This payment allocation is structured to provide an incentive to the insured to conform to the currently suggested medical regimen.

Fig. 5 illustrates a 'determine feedback information' process, indicated by general reference character 500, used to assemble the feedback information. The "determine feedback information" process 500 is invoked by the 'determine feedback information' procedure 331 and initiates at a 'start' terminal 501. A 'correlate regimen with risk factors' procedure 503 uses the risk factors determined by the 'reassess risk' procedure 327 to select one or more medical regimens that can be provided to the insured. An 'evaluate regimen history' procedure 505 then uses the history of medical regimens suggested to the insured and stored on the database 121

to determine the preferred selection of medical regimens. Then a 'modify regimen' procedure **507** modifies the existing medical regimen if the existing medical regimen is different from the preferred medical regimen. The 'modify regimen' procedure **507** may change the data collection protocol used by the client device **110**. These
5 procedures **503**, **505**, and **507** are all dynamic in that they use historical information collected from the insured and are responsive to the progressive nature of the information collected about the insured. This is particularly important for those having a progressive condition or degenerative disease (for example, diabetes, and CHD).

10 Next, a 'select feedback language' procedure **509** selects the language used to present the feedback information to the insured. Often, the selected language is a natural language such as English. However, the 'select feedback language' procedure **509** can also control how much technical jargon is to be included. Thus, the language can be customized for the educational and experience level of the insured and/or the
15 caregiver. A 'prepare feedback information' procedure **511** assembles the feedback information including the suggested medical regimens coded for the language of the insured. The 'determine feedback information' process **500** completes through an 'end' terminal **513**.

20 The 'correlate regimen with risk factors' procedure **503** evaluates the risk factors, the insured's progression and the information gathered from the insured to identify medical regimens best suited to gather additional information from the insured or to help the insured to reduce the insured-against risk. One embodiment of the invention uses Bayesian statistical techniques to perform this correlation.

Alternative Embodiments

25 Although preferred embodiments are disclosed herein, many variations are possible which remain within the concept, scope, and spirit of the invention, and these variations would become clear to those skilled in the art after perusal of this application.

Claims

What is claimed is:

1. A method including steps of:
 - 5 Dynamically determining an insured-against risk associated with an insured;
 - Providing feedback information to said insured responsive to said insured-against risk; and
 - 10 Providing an incentive to said insured to reduce said insured-against risk.
2. The computer controlled method of claim 1 wherein the step of providing an incentive further includes steps of:
 - Dynamically determining a cost for a first component of a financial product responsive to said insured-against risk;
 - 15 Allocating a first payment to said first component in response to said cost; and
 - Allocating a second payment, responsive to said first payment, to a second component of said financial product.
 - Whereby said first component and second component have different values to said insured.
 - 20
3. The computer controlled method of claim 1 wherein the step of dynamically determining further includes steps of:
 - Determining one or more risk factors associated with said insured at a plurality of times; and
 - 25 Re-determining said insured-against risk associated with said insured responsive to the step of determining one or more risk factors.
4. The computer controlled method of claim 3 wherein the step of determining one or more risk factors further includes steps of:

Gathering, at a client device, medical information of said insured at a said plurality of times;

Sending said medical information from said client device to a server device remote from said insured; and

5 Comparing, at said server device, said medical information with a risk assessment model.

5. The computer controlled method of claim 3 wherein the step of providing feedback information further includes steps of:

10 Associating, at said server device, a medical regimen with at least one of said one or more risk factors;

Sending said medical regimen from said server device to said client device; and

Presenting said medical regimen at said client device.

6. An apparatus including:

15 A client-server system having a client device and having a server device that is logically remote from an insured;

Wherein said client device is configured for collecting medical information regarding said insured and for sending said medical information to said service device;

20 Wherein said server device is configured to dynamically assess a risk value associated with said insured in response to said medical information, and to allocate an incentive responsive to said risk value;

Whereby said incentive is responsive to said medical information regarding said insured.

25 7. A financial product including:

A first component having a cost responsive to a dynamic assessment of risk associated with an insured, said first component having a first benefit associated with said insured; and

A second component having a second benefit associated with said insured, said second benefit responsive to said cost;

Whereby changes in said dynamic assessment of risk determine a relative allocation of said first benefit and said second benefit.

5 8. The financial product of claim 7 wherein the first component includes long-term care policy having a long-term care benefit.

9. The financial product of claim 7 wherein the second component includes a life insurance policy having a life insurance benefit.

10. A method including:

10 Providing a financial product that includes a first component and a second component, said first component having a cost responsive to a dynamic assessment of risk associated with an insured, said first component having a first benefit associated with said insured, said second component having a second benefit associated with said insured, said second benefit responsive to said cost;

15 Obtaining medical information about said insured;

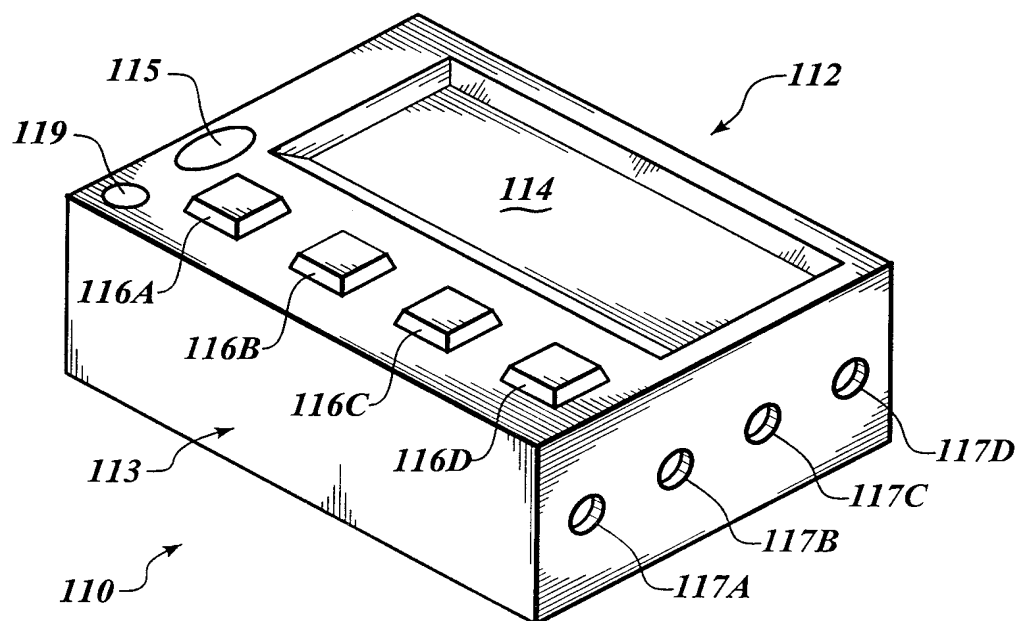
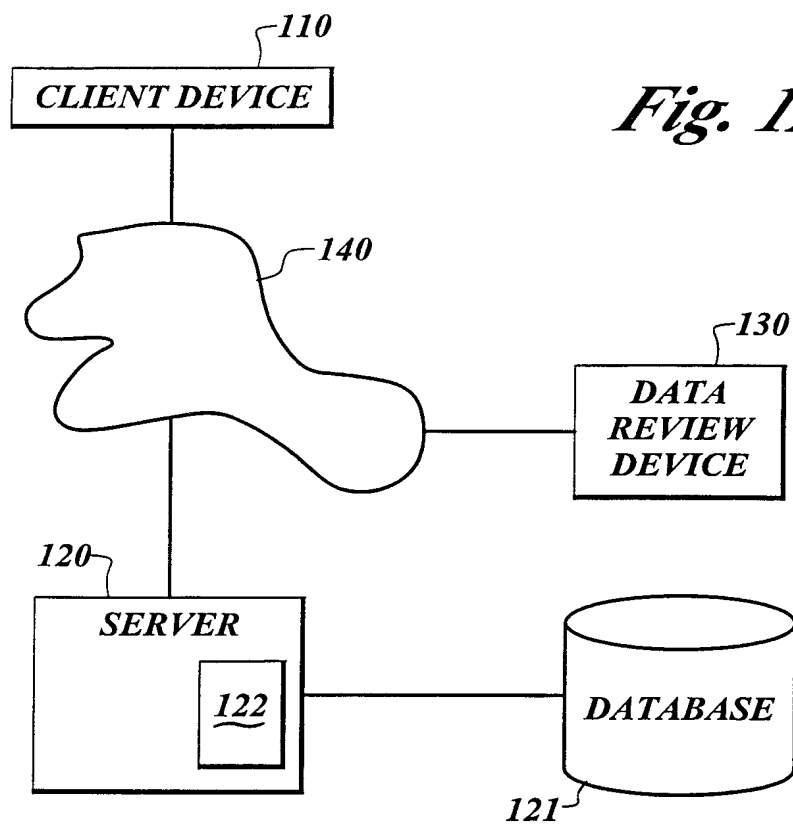
Determining said dynamic assessment of risk using said information; and changing said first benefit and said second benefit responsive to said dynamic assessment of risk.

20 11. The method of claim 10 wherein the first component includes a long-term care policy having a long-term care benefit.

12. The method of claim 10 wherein the second component includes a life insurance policy having a life insurance benefit.

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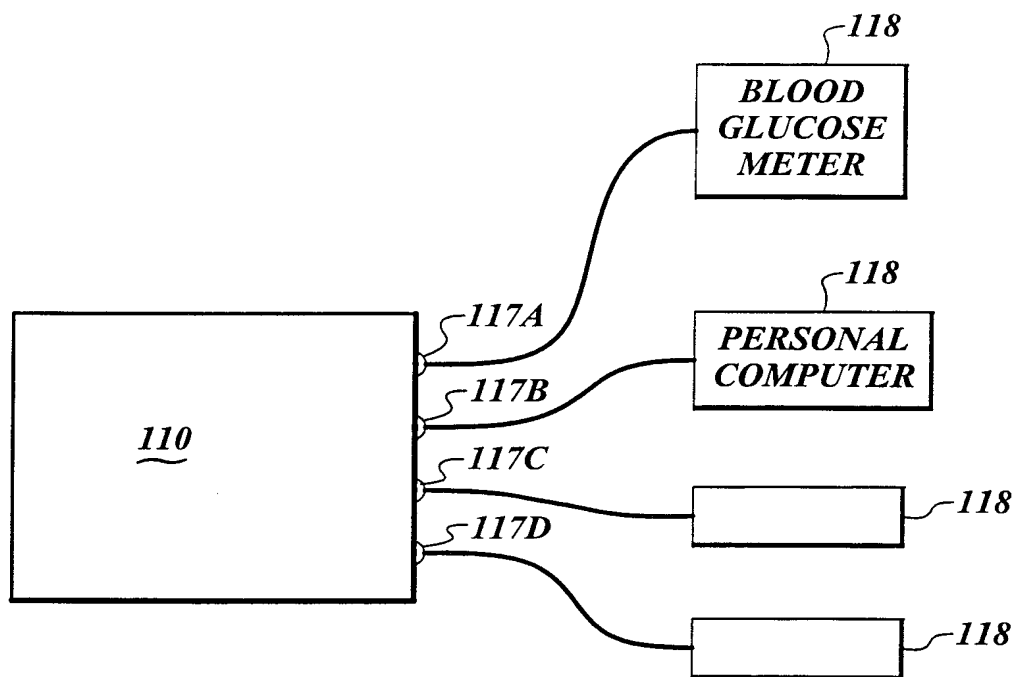


Fig. 1C

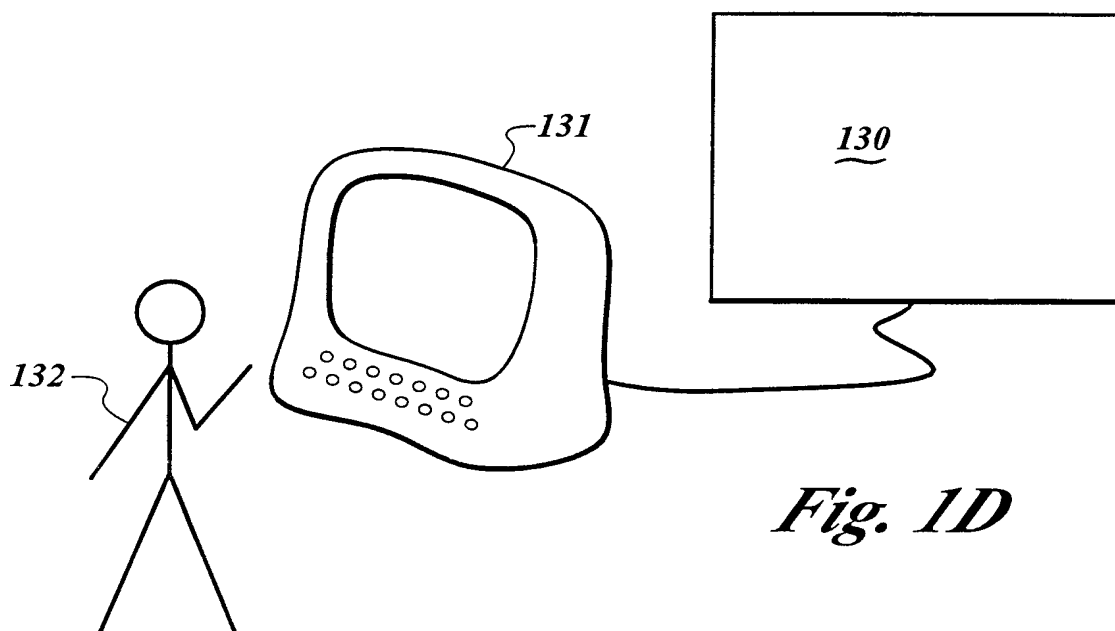
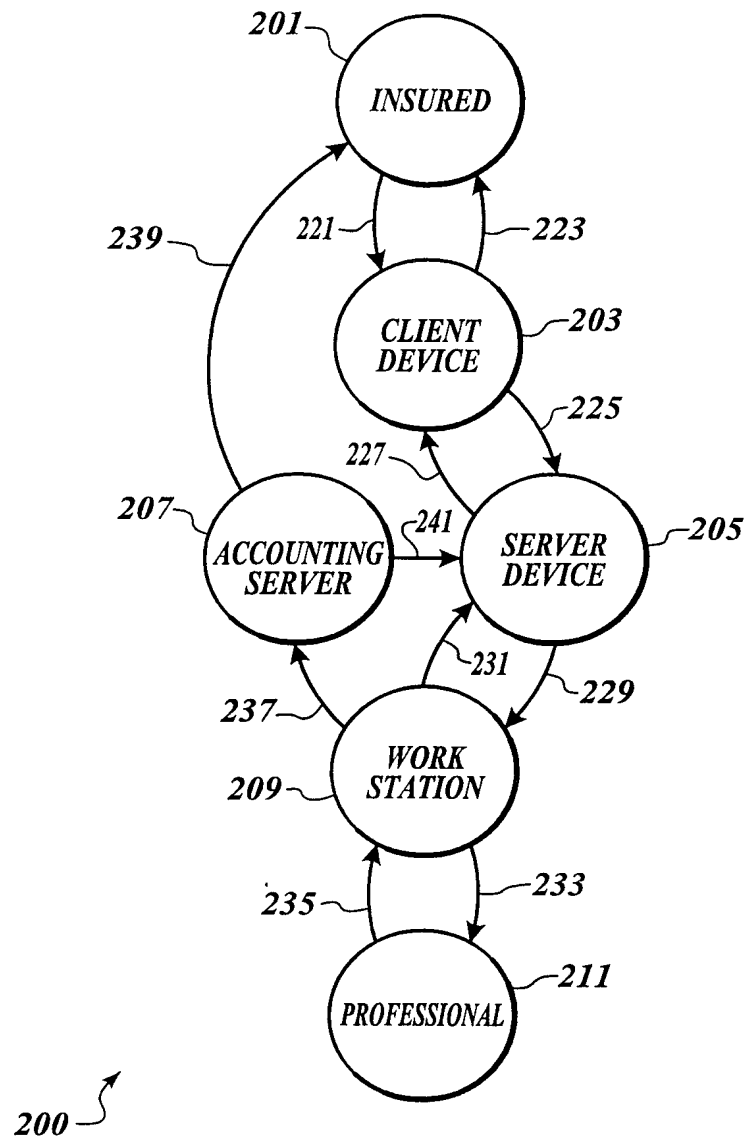
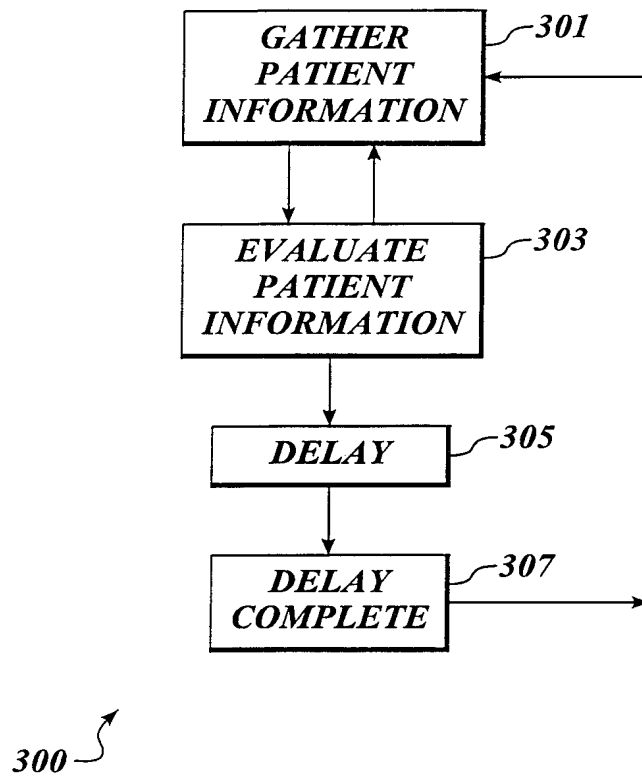


Fig. 1D

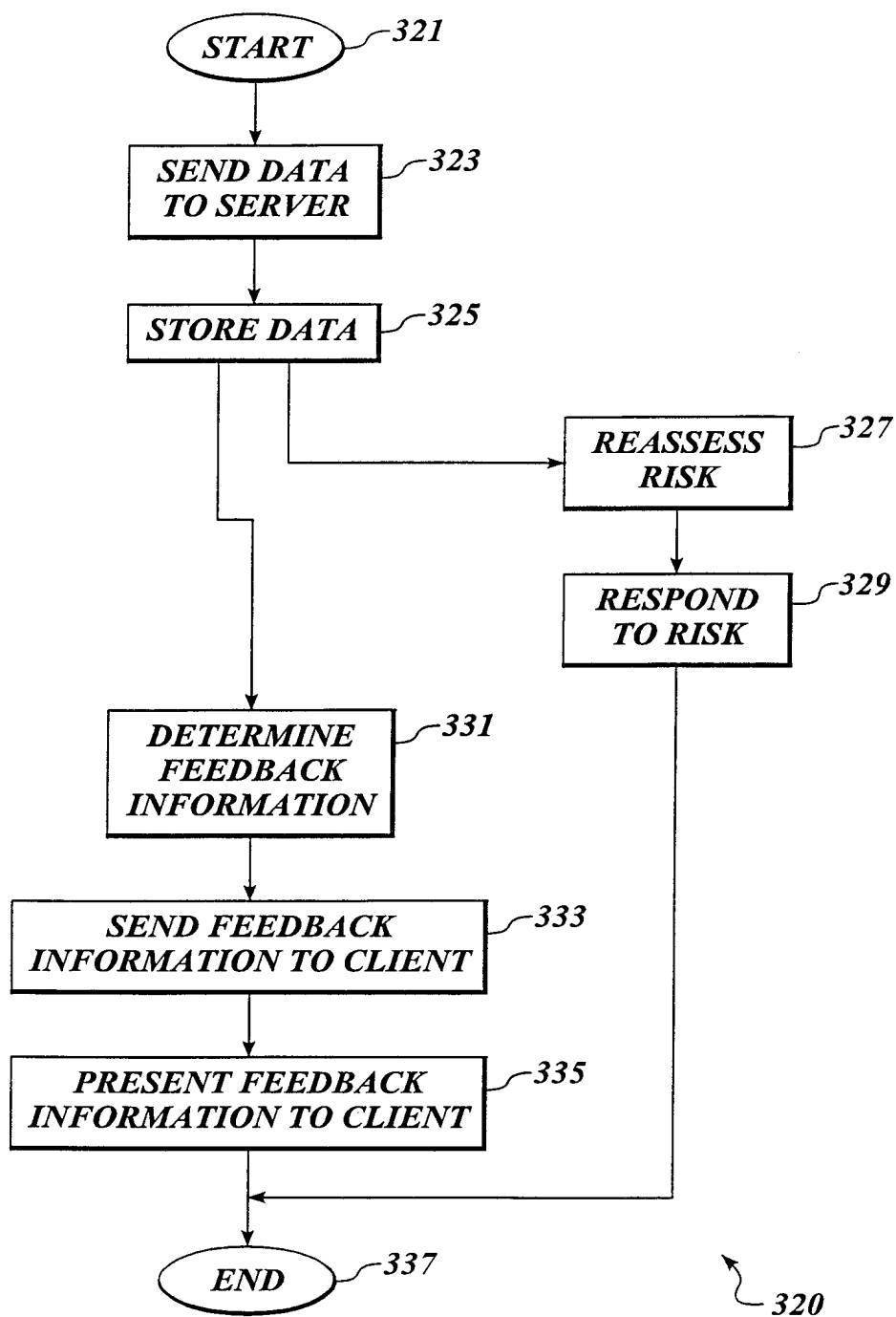
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*Fig. 2*

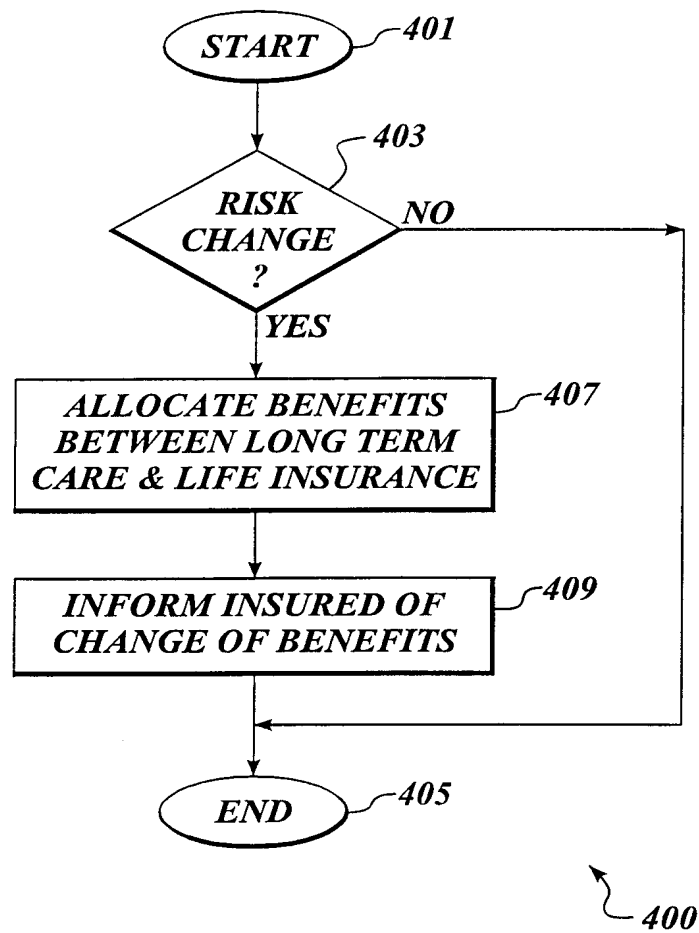
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*Fig. 3A*

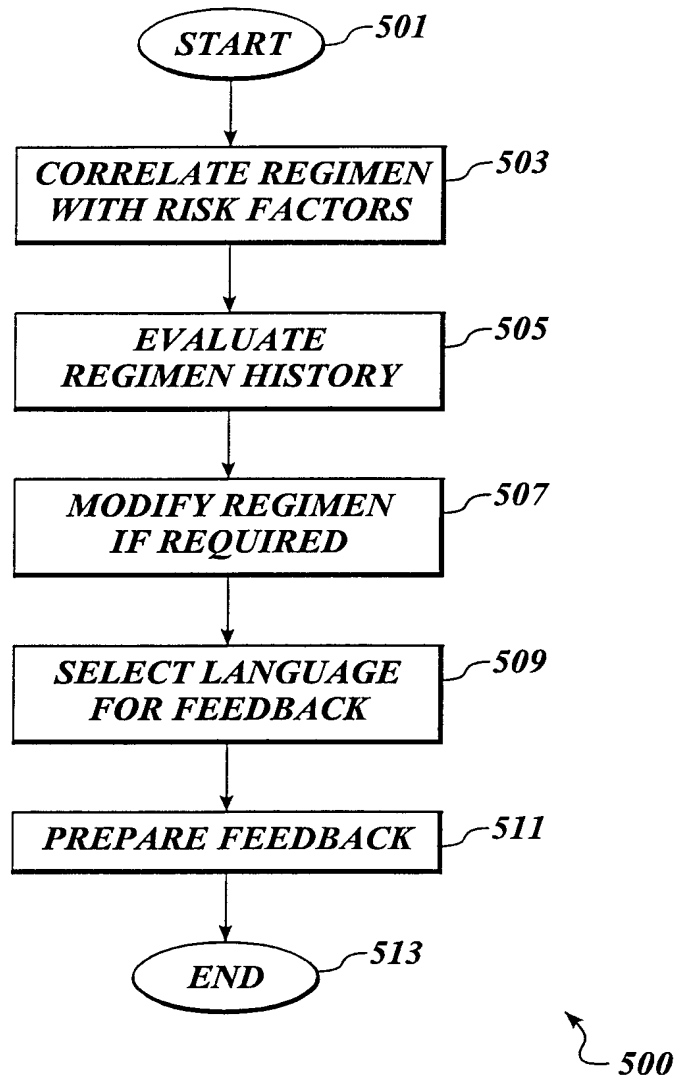
5/7

*Fig. 3B*

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*Fig. 4*

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*Fig. 5*

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US 99/22020

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G06F17/60

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	BAEHRING T U ET AL: "Using the World Wide Web--a new approach to risk identification of diabetes mellitus" INTERNATIONAL JOURNAL OF MEDICAL INFORMATICS, IR, ELSEVIER SCIENTIFIC PUBLISHERS, SHANNON, vol. 46, no. 1, 1 August 1997 (1997-08-01), pages 31-39, XP004085528 ISSN: 1386-5056	1,3-6
Y	page 34, column 2, line 1 -page 35, column 1, line 12	2
Y	US 5 752 236 A (SEXTON FRANK M ET AL) 12 May 1998 (1998-05-12) column 4, line 18 -column 6, line 19 -/--	2,7-12

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

15 February 2000

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25/02/2000

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INTERNATIONAL SEARCH REPORT

International Application No.
PCT/US 99/22020

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0 700 009 A (MINGUIJON PEREZ SALVADOR) 6 March 1996 (1996-03-06) column 1, line 55 -column 2, line 54 ----	7-12
X	PALFREY T R ET AL: "Repeated insurance contracts and learning" RAND JOURNAL OF ECONOMICS, AUTUMN 1985, USA, vol. 16, no. 3, pages 356-367, XP000878736 ISSN: 0741-6261 page 356, line 17 -page 357, line 6 ----	1,3
A	CLEMONS E K ET AL: "Information technology and information asymmetry: the future of private individual health insurance" PROCEEDINGS OF THE THIRTIETH HAWAII INTERNATIONAL CONFERENCE ON SYSTEM SCIENCES (CAT. NO.97TB100234), PROCEEDINGS OF THE THIRTIETH HAWAII INTERNATIONAL CONFERENCE ON SYSTEM SCIENCES, WAILEA, HI, USA, 7-10 JAN. 1997, pages 240-248 vol.3, XP002130528 1997, Los Alamitos, CA, USA, IEEE Comput. Soc. Press, USA ISBN: 0-8186-7743-0 page 240, column 2, line 40 -page 241, column 1, line 27 page 242, column 1, line 9 - line 27 ----	1-12
A	GB 2 231 420 A (AGENCY MANAGEMENT SERVICES INC) 14 November 1990 (1990-11-14) page 8, line 18 -page 9, line 5 -----	1-12

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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EP 0700009 A	06-03-1996	ES 2108613 A	16-12-1997
GB 2231420 A	14-11-1990	NONE	